

Fragmentation in e^+e^- Annihilation

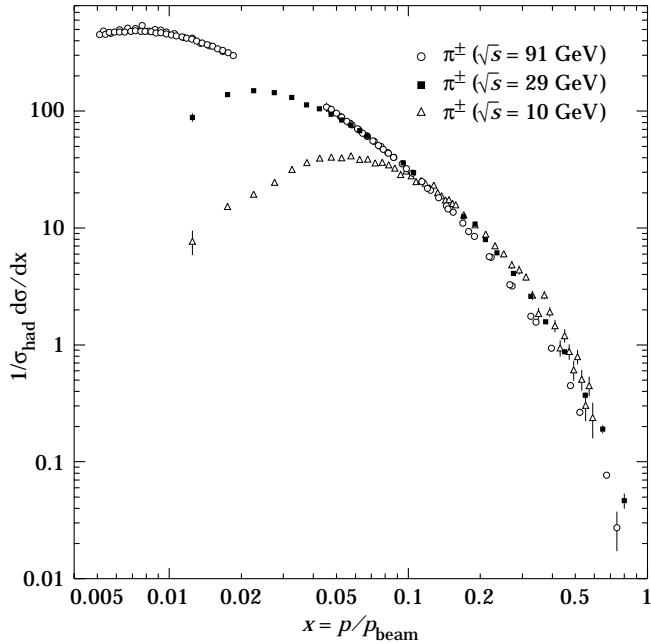


Figure 38.11: Fragmentation into π^\pm in e^+e^- annihilations: Inclusive cross sections $(1/\sigma_{\text{had}})(d\sigma/dx)$, with $x = p/p_{\text{beam}}$. The indicated errors are statistical and systematic errors added in quadrature.

\triangle : rate at $\sqrt{s} = 9.98$ GeV; an overall uncertainty of 1.8%:
ARGUS—H. Albrecht *et al.*, Z. Phys. **C44**, 547 (1989).

\blacksquare : rate at $\sqrt{s} = 29$ GeV **TPC**—H. Aihara *et al.*, Phys. Rev. Lett. **61**, 1263 (1988).

\circ : rate for hadronic decays of the Z at $\sqrt{s} = 91.2$ GeV **ALEPH**—D. Buskulic *et al.*, Z. Phys. **C66**, 355 (1995); **OPAL**—R. Akers *et al.*, Z. Phys. **C63**, 181 (1994). (Courtesy of O. Biebel, S. Bethke, and D. Lanske, RWTH, Aachen, 1995.)

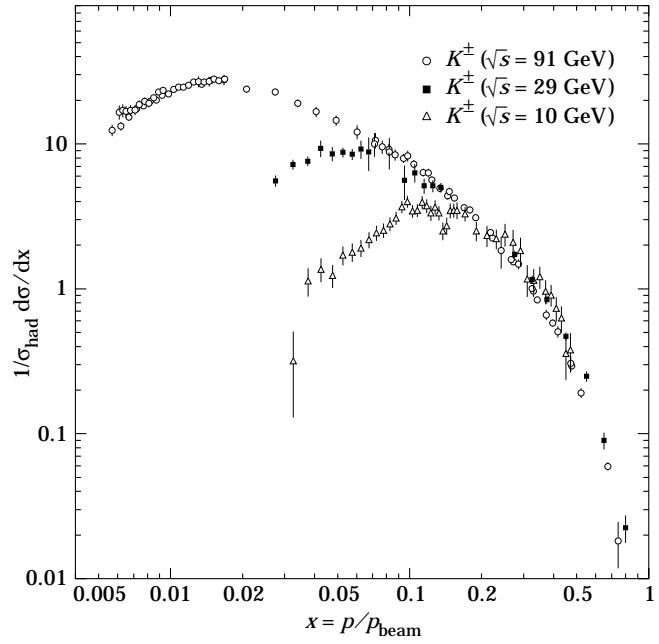


Figure 38.12: Fragmentation into K^\pm in e^+e^- annihilations: Inclusive cross sections $(1/\sigma_{\text{had}})(d\sigma/dx)$, with $x = p/p_{\text{beam}}$. The indicated errors are statistical and systematic errors added in quadrature.

\triangle : rate at $\sqrt{s} = 9.98$ GeV; an overall uncertainty of 1.8%:
ARGUS—H. Albrecht *et al.*, Z. Phys. **C44**, 547 (1989).

\blacksquare : rate at $\sqrt{s} = 29$ GeV **TPC**—H. Aihara *et al.*, Phys. Rev. Lett. **61**, 1263 (1988).

\circ : rate for hadronic decays of the Z at $\sqrt{s} = 91.2$ GeV **ALEPH**—D. Buskulic *et al.*, Z. Phys. **C66**, 355 (1995); **DELPHI**—P. Abreu *et al.*, Nucl. Phys. **B444**, 3 (1995); **OPAL**—R. Akers *et al.*, Z. Phys. **C63**, 181 (1994). (Courtesy of O. Biebel, S. Bethke, and D. Lanske, RWTH, Aachen, 1995.)

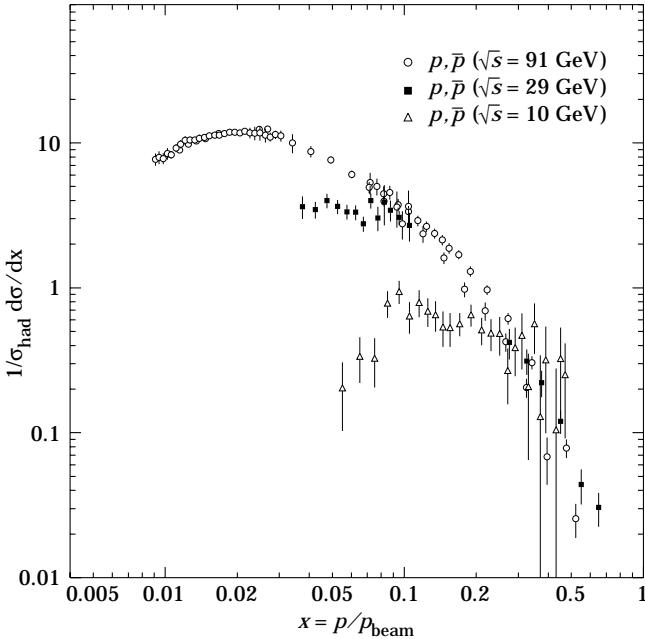


Figure 38.13: Fragmentation into $p\bar{p}$ in e^+e^- annihilations: Inclusive cross sections $(1/\sigma_{\text{had}})(d\sigma/dx)$, with $x = p/p_{\text{beam}}$. The indicated errors are statistical and systematic errors added in quadrature.

\triangle : rate at $\sqrt{s} = 9.98$ GeV; an overall uncertainty of 1.8%. This rate is obtained from the measured \bar{p} rate by scaling with a factor of two: **ARGUS**—H. Albrecht *et al.*, Z. Phys. **C44**, 547 (1989).

\blacksquare : rate at $\sqrt{s} = 29$ GeV: **TPC**—H. Aihara *et al.*, Phys. Rev. Lett. **61**, 1263 (1988).

\circ : rate for hadronic decays of the Z at $\sqrt{s} = 91.2$ GeV: **ALEPH**—D. Buskulic *et al.*, Z. Phys. **C66**, 355 (1995). **DELPHI**—P. Abreu *et al.*, Nucl. Phys. **B444**, 3 (1995). **OPAL**—R. Akers *et al.*, Z. Phys. **C63**, 181 (1994). (Courtesy of O. Biebel, S. Bethke, and D. Lanske, RWTH, Aachen, 1995.)